(FILE 'HOME' ENTERED AT 08:27:26 ON 27 JUN 2003)

FILE 'CAPLUS, MEDLINE, EMBASE, BIOSIS, LIFESCI, AGRICOLA' ENTERED AT 08:27:42 ON 27 JUN 2003

L1	179	S	HUMAN (W) ARTIFICIAL CHROMOSOME
L2	80	S	L1 AND PY<=1999
L3	37	DUP REM	L2 (43 DUPLICATES REMOVED)
L4	143	S	TOMIZUKA K?/AU
L5	29	S	L1 AND L4
L6	14	DUP REM	L5 (15 DUPLICATES REMOVED)
L7	19619	S	YOSHIDA-H?/AU
L8	19619	S	YOSHIDA H?/AU
L9	12	S	L8 AND L1
L10	5	DUP REM	L9 (7 DUPLICATES REMOVED)
L11	1524	S	HANAOKA K?/AU
L12	0	S	L11 AND L1
L13	578	S	ISHIDA I?/AU
L14	26	S	L13 AND L1
L15	11	DUP REM	L14 (15 DUPLICATES REMOVED)
L16	2349	S	KUROIWA Y?/AU
L17	26	S	L16 AND L1
L18	12	DUP REM	L17 (14 DUPLICATES REMOVED)

WEST Search History

DATE: Friday, June 27, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L11	L10 and chromosome	13	L11
L10	kuroiwa-y$.in.	460	L10
L9	L8 and chromosome	31	L9
L8	ishida-I$.in.	1341	L8
L7	L6 and chromosome	9	L7
L6	hanaoka-K$.in.	599	L6
L5	L4 and chromosome	19	L5
L4	yoshida-h$.in.	13481	L4
L3	L2 and chromosome	16	L3
L2	tomizuka-K$.in.	161	L2
L1	human with artifical with chromosome	23	L1

END OF SEARCH HISTORY

1: Theriogenology. 2003 Jan 1;59(1):107-13.

Artificial chromosome vectors and expression of complex proteins in transgenic animals.

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Artificial chromosome vectors are autonomous, replicating DNA sequences containing a centromere, two telomeres and origins of replication. Artificial chromosomes have been proposed as possible vectors for transferring very large sequences of DNA into animals. Our goal has been to insert the entire human heavy- and light-chain immunoglobulin loci into cattle as a step in developing a production system for large quantities of human therapeutic polyclonal antibodies. A mitotically stable fragment of chromosome 14, containing the human heavy-chain locus, was identified. A chromosome cloning system was used to transfer the human lambda locus from an unstable chromosome 22 fragment to the chromosome 14 fragment to create a human artificial chromosome (HAC) carrying both immunoglobulin loci. The HAC vector was introduced into bovine primary fibroblasts. Selected fibroblast clones were rejuvenated and expanded by producing cloned fetuses. Cloned fetal cells were selected and recloned to produce 21 healthy, transchromosomic (Tc) calves. Four were analyzed and shown to functionally rearrange both heavy- and light-chain human immunoglobulin loci and produce human polyclonal antibodies. These results demonstrate the feasibility of using HAC vectors for production of transgenic livestock. More importantly, Tc cattle containing human immunoglobulin genes may be used to produce novel human polyclonal therapeutics. Copyright 2002 Published by Elsevier Science Inc.

Publication Types:
- Review
- Review, Tutorial

PMID: 12499022 [PubMed - indexed for MEDLINE]

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